

Explanation of Significant Differences ADEQ RADD vs. AMEC FS

Explanation for additional listing of constituents in ADEQ RADD:

COC's in the Feasibility Study (FS) Report (AMEC Geomatrix, December 2009) were generated based on the FI findings and includes the Center for Toxicology and Environmental Health (CTEH) Derivation of Human Health (HH) Risk-Based Concentrations (RBCs). The Derivation of HH RBCs in the December 2009 FS did not include chemicals in subsurface soil that exceed the protection of soil to groundwater screening levels (DAF 20). Therefore, ADEQ expanded the list chemicals to include COCs that exceed the DAF 20 which is shown in Table 2A of the RADD.

The Derivation of HH RBCs in the December 2009 FS only included COCs in perched zone groundwater via the vapor intrusion pathway. However, ADEQ considers all groundwater a source of potable water and these chemicals in on-site perched zone groundwater serve as a potable source of contamination to the alluvial aquifer. Therefore, chemicals in on-site perched zone groundwater with concentrations that exceed MCLs or Tap Water Screening Levels (based at 1E-05) are listed as COCs on Table 2B of the RADD. Dinoseb was included as a COC on Table 2B of the RADD for on-site alluvial groundwater because concentrations in the February 2009 FI exceed the MCL.

Comparison of Soil Remedy Alternatives (in-situ stabilization)

<u>ADEQ RADD</u>	<u>AMEC FS</u>
Soil Remedy Alternative S2c: In-Situ Stabilization, Focused Approach Figure 5	Soil Remedy Alternative S2: In-Situ Stabilization, Focused Approach Figure 8A
Soil stabilization area: 2.19 acres	Soil Stabilization area: 1.34 acres
Cost: \$3,343,491	Cost: \$2,144,255

Justification: Dinoseb was retained as a COC for on-site perched groundwater (Table 5C of the RADD). Therefore it was warranted to address dinoseb in the sub-surface soil to limit the infiltration to the groundwater. The area outlined for stabilization in the RADD has been expanded because significant dinoseb concentrations were found in the areas adjacent to the area outlined by AMEC. In addition, the area outlined for stabilization in the RADD located in the northern portion of the facility was expanded to encompass SWMUs directly north of the production units. SWMU's are identified in Figure 3 of the ADEQ RADD.

Comparison of Soil Remedy Alternatives (SVE)

<u>ADEQ RADD</u>	<u>AMEC FS</u>
Soil Remedy Alternative S4c: Soil Vapor Extraction, Focused Approach, ADEQ RADD Figure 6	Soil Remedy Alternative S4b: Soil Vapor Extraction, Focused Approach, FS Figure 10B
SVE area: 0.8 acres	SVE area: 1.5 acres
Cost: \$1,409,794	Cost: \$2,323,587

Justification: The area outlined to use Soil Vapor Extraction (SVE) was reduced in the ADEQ RADD (Figure 6, ADEQ RADD) because in-situ stabilization was chosen in the areas where SVE was originally proposed. In-situ stabilization was viewed as a better alternative because of the presence of dinoseb in these areas.

Comparison of Building Demolition Alternatives

ADEQ RADD

Demolition of on-site Structures, Figure 4
Unit 5, Unit 1, & laboratory buildings were
not included for demolition

AMEC FS

Demolition of on-site Structures, Figure 18

Justification: The FS was written before ADEQ signed a lease agreement with Quapaw LLC to use the Cedar Chemical site. The lease agreement lists the buildings which are to remain on-site, which is reflected in Figure 4 of the ADEQ RADD. The structures that remain on site will have little if any impact on implementing the remedial alternatives selected in the RADD.